EXHIBIT 8

Digital Forensic Report

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Case Reference: FMDS2020 RSJA HEETHUIS V MUSKEGON COUNTY

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Forensic Mind Data Services, L.L.C

Case Summary

Forensic Mind Data Services was retained to complete a forensic examination of digital evidence. The focus of the examination involves an Apple iPhone. The item to be examined was imaged on scene with the owner of the device present.

Evidence Items

Manufacturer	**Apple**
Product	**iPhone 8 Plus**
HW Revision	**D21AP, Model:MQ9E2**
Platform	**Apple**
SW Revision	**12.3.2_Firmware:iBoot-4513.260.81_Baseband:3.60.00_Build:16F250**
Device Name	**iPhone**
Serial Number	**FDCW304TJCM0**
ESN	**35297909716523**
IMEI	**352979097165236**
Jailbroken	**No**
SIM Card	**Yes**
Owner Phone Number	**(248) 249-7968**

Hardware and Software Utilized

Intel based Mac Pro, Windows 10 , OS X 10.13.6 and Linux on Intel based computer.

Mobile Forensic Express Pro, Sandersons SQL Forensic Toolkit, AUTOPSY 4.0.0, X-Ways Forensics 19.6, Open Source Tools.

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Analysis of Evidence Items

iPHONE 8 Plus:

The Apple iPhone was examined using the parameters given by the client. The iPhone was imaged with Mobile Forensic Express Pro. This allows examination of the files located on the accessible phone memory. This is the standard forensic methodology used for these devices. The directory structure of the allocated files was consistent with the Apple iOS Operating System. The iPhone 8 Plus contained the additional Device Properties:

Device Time	2019-10-02 16:55:22 (UTC-4)
Time Zone	America/Detroit
Wi-Fi MAC Address	B8:C1:11:EC:CA:AB
Bluetooth Address	B8:C1:11:EC:CA:AC
Ethernet Address	B8:C1:11:EC:CA:AD
Jailbroken	No
Account Enabled On Phone Date	2018-12-11 06:58:37 (UTC-5)
Was Restored From Backup	Yes
Last Backup Date	2018-04-12 19:26:53 (UTC-4)
SIM Card	Yes
IMSI	310120067851514
SIM Card Country	United States
ICCID	89011202000220602087

ANALYSIS OF iPHONE RECORDINGS:

The focus of this forensic investigation was the authenticity of a voice recording that was produced by the iPhone 8 Plus that was examined. A copy of that recording was submitted by the client for examination and the original file that was extracted directly from the iPhone was also examined.

Submitted Voice Recording:

The file that was submitted had the file name of "L Heethuis Phone call.m4a". All of the file properties metadata (internal coding that can not be changed by the user) was examined. This type of file was created by an iPhone running the iOS 12.1.4. This file was created on 03/24/2019, 17:12:57 -4 UTC. This file was modified on 03/24/2019, 17:12:57 -4 UTC. The play duration of the file was 2:25 minutes.

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File Extracted From iPhone:

The file that was submitted had the file name of "20190324 171257.m4a". All of the file properties metadata (internal coding that can not be changed by the user) was examined. This type of file was created by an iPhone running the iOS 12.1.4. This file was created on 03/24/2019, 17:12:57 -4 UTC. This file was modified on 03/24/2019, 17:12:57 -4 UTC. The play duration of the file was 2:25 minutes.

File Comparison Using MD5 Hash Algorithm:

The MD5 hash algorithm was calculated for each submitted file. This creates a digital "fingerprint" that is unique to the file. The files were compared and listed below were the results:

"L Heethuis Phone call.m4a"   MD5 HASH VALUE   f418fb00f778ee93d7dc096db7e4f44e

"20190324 171257.m4a"   MD5 HASH VALUE   f418fb00f778ee93d7dc096db7e4f44e

These mathematical calculations show that the two files are exactly identical.

Metadata Signatures of files:

Both files contained the internal file components consistent with an Apple iOS 12.1.4 voice recorded file.

Spectrum Analysis To Identify Audio Enhancement:

The voice recordings were plotted for a spectrum analysis to note visual unusual sounding sections in the recording which are called anomalies. Unusual sounding sections can be changes in the background ambiance, inconsistent speech pacing, and wording as well as changes in the noise floor. The noise floor is a series of natural and electronic sounds that should be consistent throughout the recording. Noise is defined as any sound source signals like hiss, hums, wind, HVAC, and other sounds that are not part of the intended recording. There were no inconsistent levels present. Shown below is the visual depiction of the analysis.
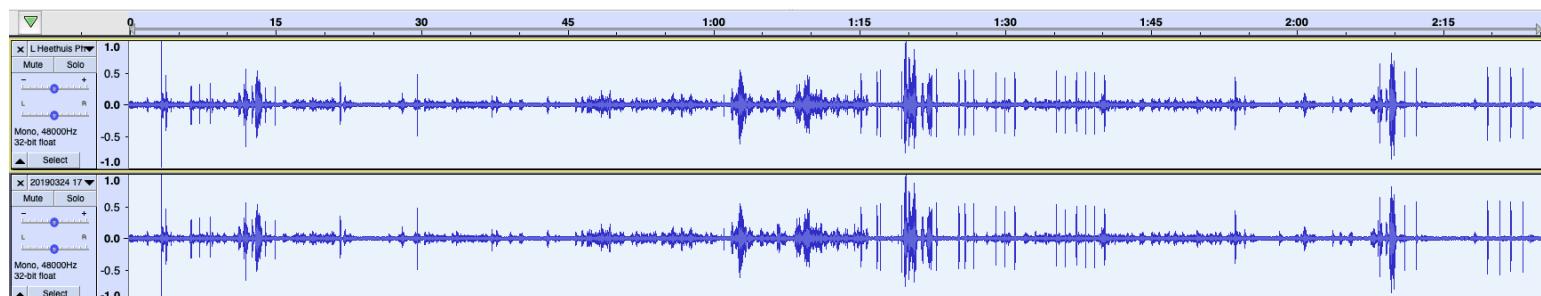
Spectrum Analysis

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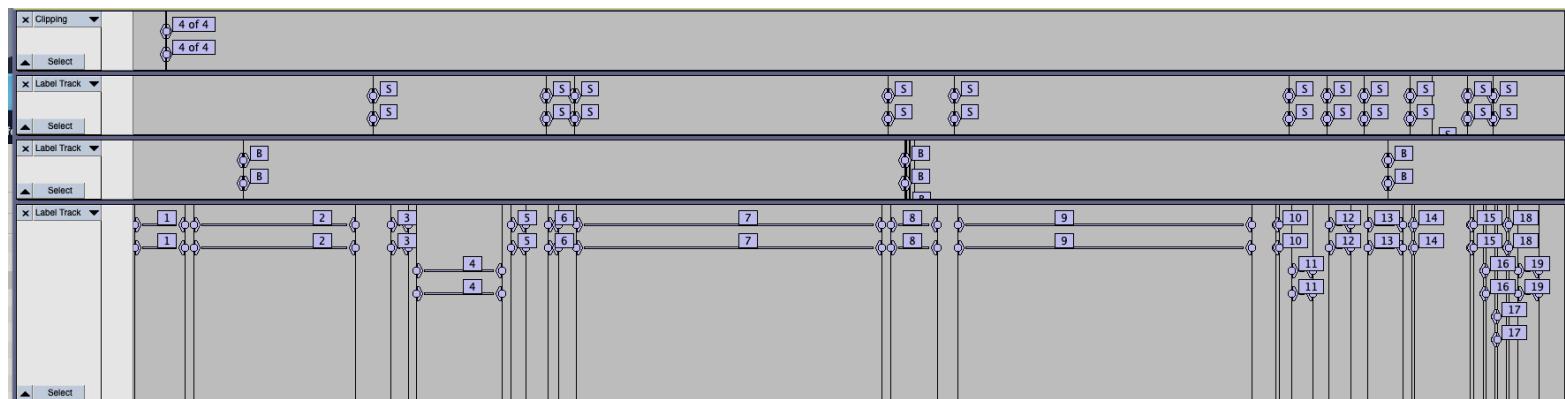
Clipping, Beat, Silence and Sound Analysis

These findings re-enforce the sector level file analysis that both files are identical, original and have not been enhanced or altered.

Conclusion:

The submitted recordings that were examined were produced by the submitted Apple iPhone. The two files of interest were identical in nature, and have not been changed, adulterated or enhanced.